(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 13 October 2005 (13.10.2005)

PCT

(10) International Publication Number WO 2005/096322 A1

(51) International Patent Classification⁷: 12/08

H01B 12/02,

(21) International Application Number:

PCT/NZ2005/000064

(22) International Filing Date: 31 March 2005 (31.03.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 532066

31 March 2004 (31.03.2004) NZ

- (71) Applicant (for all designated States except US): INDUS-TRIAL RESEARCH LIMITED [NZ/NZ]; Brook House, 24 Balfour Road, Parnell, Auckland (NZ).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): FEE, Michael [NZ/NZ]; Brook House, 24 Balfour Road, Parnell, Auckland (NZ). LONG, Nicholas [NZ/NZ]; Brook House, 24 Balfour Road, Parnell, Auckland (NZ). STAINES, Michael [NZ/NZ]; Brook House, 24 Balfour Road, Parnell, Auckland (NZ).
- (74) Agents: ADAMS, Matthew, D et al.; A J Park, 6th Floor Huddart Parker Building, PO Box 949, Wellington, 6015 (NZ).

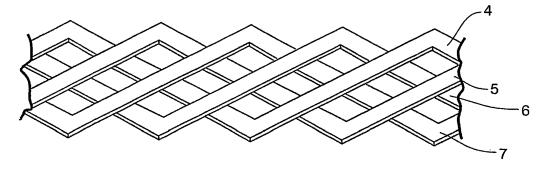
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMPOSITE SUPERCONDUCTOR CABLE PRODUCED BY TRANSPOSING PLANAR SUBCONDUCTORS



(57) Abstract: A method of forming a low AC loss, fully transposed cabled superconductor from multiple superconducting subconductors cut in a serpentine form from a wider superconducting tape is disclosed. By assembling pre-cut subconductor tapes a cable with a short transposition pitch length can be formed without excessive in-plane or out-of-plane deformation of the tape which could otherwise cause degradation of its superconducting performance. The transposition may be in either Roebel bar or Rutherford cable geometry.

